

## **REMARKS**

Claims 1 through 21 are pending in the application. Claims 3, 8, 16 and 17 have been amended. Bases for the amendments can be found throughout the application, drawings and claims as originally filed and as such, no new matter has been presented. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

## **AMENDMENTS**

Claim 3 has been amended to correct a typographical error (i.e., “slated” should be “slanted”).

Claim 8 has been amended to clarify the function of the conduit that interconnects the delivery unit and the second delivery unit.

Claim 16 has been amended to broaden the claim.

Claim 17 has been amended to provide antecedent basis for the term “upwardly sloped portion” in view of the amendment to Claim 16.

## **REJECTIONS UNDER 35 U.S.C. § 103**

### **Claims 1 through 15**

Claims 1-7, 12 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Thomas et al. (U.S. Pat. No. 5,975,797) in view of Chan (U.S. Pat. No. 3,900,962), Baxter (U.S. Pat. No. 3,159,172), and Harrison (U.S. Pat. No. 5,924,240). Claim 8 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Thomas et al. in view of Chan, Baxter, and Harrison and further in view of Ogi

(U.S. Pat. No. 6,540,436). Claims 9 and 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Thomas et al. in view of Chan, Baxter, Harrison, and Ogi, and further in view of Lynch (U.S. Pat. No. 271,089). Claims 11 and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Thomas et al. in view of Chan, Baxter, Harrison, and Ogi, and further in view of Saggese (U.S. Pat. No. 4,378,032).

Claim 13 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Thomas et al. in view of Chan, Baxter, and Harrison and further in view of Kanst (U.S. Pat. No. 1,280,486). These rejections are respectfully traversed.

At the outset, Applicant notes that the Thomas et al. reference appears to disclose a system for watering, fertilizing and aerating. The system appears to include a porous insert member 24, which as the Examiner has noted, is characterized as being optional. Applicant notes, however, that the '797 patent to Thomas et al. characterizes the porous insert member 24 at column 5, lines 44 through 47 as facilitating "the collection and delivery of water, air and nutrients to the root areas of a plant". Accordingly, elimination of the porous insert member 24 in the manner suggested by the Examiner would appear to eliminate the capability of the device of the Thomas et al. reference to capture water.

Applicant notes that the Chan reference appears to disclose a device for watering, fertilizing and aerating. The device includes a water tube (24), an air tube (30), a water deflector (26), a housing (36) and an outlet section (44) having an internal support pipe (28) onto which a plurality of disc distributors (46) are mounted. The water deflector (26), which is disposed within the housing (36), is conically shaped and coupled to the air tube (30). The '962 reference does not characterize the water

deflector (26) as being sealingly engaged to the housing (36) and as such, water that is dispensed from the water tube (24) is either deflected radially outwardly by the water deflector (26) toward an aperture (34) in the housing (36) or falls into an annular cavity that is formed between the support pipe (28) and an inner wall of the housing (36). Water exiting the aperture (34) enters a cavity between the inner and outer walls of the housing (36) that may house a porous container of fertilizer (38). Apertures (42, 43) are formed through a lower end of the housing (36). The apertures (43) are formed in the outer wall of the housing (36) and permit fertilizer to be dispensed to the surface of the soil surrounding the device, while the apertures (42) are formed in the inner wall of the housing (36) and permit fertilizer to be dispensed into the annular cavity between the support pipe (28) and the inner wall of the housing (36). The disc distributors (46) appear to be conically shaped, with an upper end that is fixedly coupled to the internal support pipe (28) and a lower end that is disposed proximate a pipe (50) that is intermediate the internal support pipe (28) and an outer apertured pipe (48). As described at column 2, lines 20 through 24 of the '962 patent, "the fertilizer fluid deflected from the disc distributors 46 passes first through the apertures 52 and runs down the pipe 50 before exiting into the ground through the outer apertures 54." Accordingly, neither the deflector (26) nor the disc distributors (46) capture water, let alone direct captured water outwardly toward a wall member so that it may be passed therethrough.

Applicant notes that the Harrison reference is directed to a device for watering and fertilizing plants. The device includes a cylindrical tube (2) that is closed at one end by a cap (8). Two holes (10) are formed through the wall of the cylindrical tube (2) that

are of a sufficiently small diameter (i.e., on the order of about 5/64 inch (2mm)) so as to allow only a trickle of water flow therethrough. The '240 patent indicates at column 3, lines 25 through 31 that "the suitable diameter for the holes 10 through the tube 2 is on the order of 5/64 inches" or about 2mm and that "no more than two holes should be present in the sidewall of the tube 2." Accordingly, the device of the Harrison reference is not suited to aerating and does not include any structure that captures water or directs captured water outwardly through a wall member.

The Baxter reference is directed to a sprinkler system that employs a plurality of hydrants (9) that are interconnected to a main supply conduit (10) through which pressurized water flows. A wall (35) is disposed within the interior area of each hydrant (9) and extends generally transverse to the longitudinal axis of the hydrant (9). A hollow pipe, which is described in the '172 patent as being an upper discharge end (49), extends through the wall (35) and couples a reservoir compartment (47) with a lower inlet compartment (46). An o-ring (38) is employed to seal the interface between the wall (35) and the upper discharge end (49). Frictional engagement provided by the o-ring (38) is employed to permit the height with which the upper discharge end (49) extends above the wall (35) to be adjusted. The upper discharge ends (49) of the hydrants (9) may be adjusted so that they each discharge a desired amount of water (see, e.g., column 4, line 73 through column 5, line 12).

In comparison, Applicant's invention relates to a device for directing water, nutrients and air to a root system. The device includes a plurality of deflectors that are spaced about a perimeter of an internal cavity in an elongated hollow housing. The deflectors are configured to capture water and to direct the captured water outwardly

toward a wall member of the hollow housing so that it may be passed there through.

As the feeder roots of a plant are generally distributed in shallow soil and as the feeder roots of a plant do not grow or spread in a uniform manner about the plant, outward direction of water and nutrients into the soil directs the water and nutrients horizontally toward the feeder roots of a plant. In comparison to the above-references that disclose the distribution of water and nutrients into the soil vertically, Applicant notes that such delivery systems tend to be significantly less effective because the water and nutrients can easily pass through the feeder root system if these devices are placed within the area of the feeder roots and/or may not be effective at all if these devices are placed outside the feeder roots but which is nonetheless in an area proximate the plant. To the extent that any of the prior art devices have an open bottom or simply utilize one or more drain holes that cause water and nutrients to drain vertically, Applicant specifically notes that gravity will ensure that the water and nutrients will drain from the lowest drain points and thereby substantially increase the risk that the water and nutrients will be deposited at a level below the feeder roots.

In view of the above summaries of the references cited by the Examiner when compared to the Applicant's invention, Applicant respectfully asserts that the Examiner has not presented a prima facie case of obviousness.

In this regard, the Baxter '172 patent does not disclose a device for directing water, nutrients and air to a root system, nor does it relate to the field of the present invention or a field reasonably pertinent to the resolution of the problem being solved by the present invention. Consequently, the Baxter device is not analogous art and cannot be properly combined with Thomas et al. or cited as prior art. *In re Clay*, 966 F.2d 656,

658 (Fed. Cir. 1992).

However, even if Baxter were classified as analogous art, the combination of the Baxter, Harrison and/or Chang references with the Thomas et al. reference would still be improper. The establishment of a *prima facie* case of obviousness requires that three basic criteria be met: 1) some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings, 2) that there must be a reasonable expectation of success, and 3) that the prior art reference or references must teach or suggest all the claim limitations. *See, e.g., In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Moreover, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on an applicant's disclosure. *Id.*

Regarding the incorporation of the deflector (26) or the disc distributors (46) of the Chan reference to the device of the Thomas et al. device, Applicant notes that the interior of the Thomas et al. device is hollow and consequently, there is no structure to which the deflector (26) or the disc distributors (46) may be mounted. Consequently, there is neither any teaching or suggestion for this combination in the prior art, or a reasonable expectation of success.

Regarding the incorporation of the wall (35) and upper discharge end (49) of the Baxter reference with the Thomas et al. device, Applicant notes that the Patent Law draws a distinction between trade-offs and motivation to combine: trade-offs often concern what is feasible, not what is necessarily desirable, whereas motivation to combine requires the latter. *See, e.g., Winner International Royalty Corp. v. Wang*,

2002 F.3d 1340, 53 USPQ2d 1580 (Fed. Cir.), *cert. denied*, 530 U.S. 1238 (2000).

In the instant case, the Examiner argues that components of the Baxter hydrant (i.e., the solid wall member) be fixedly coupled to the housing of the Thomas et al. device. Construction in this manner is necessary for the Baxter hydrant as the wall (35) and upper discharge end (49) cooperate to effectively elongate the lower inlet compartment (46) to adjust the head pressure on a water column (to thereby adjust the output of the hydrant). The addition of the wall member (35) to the Thomas et al. device would significantly block air and water from entering the lower portion of the Thomas et al. device and as such, is not desirable. Accordingly, it appears that the motivation for the modification is impermissibly found in Appellant's disclosure. Moreover, the modification that has been proposed by the Examiner appears to be a trade-off rather than the requisite motivation-to-combine, since it concerns what may be feasible rather than what is necessarily desirable.

Regarding the combination of the Harrison reference with the Thomas et al. reference, Applicant notes that the Harrison reference does not include an upper flange extending outwardly from a housing proximate an open top nor does it include a lower flange that extends both outwardly and upwardly from the housing. Rather, the upper end of the device of the Harrison reference is cylindrically shaped while the lower end is formed by a cylindrical cap.

In view of the above, Applicant respectfully submits that there is no motivation or suggestion in the art to combine the references in the manner suggested by the Examiner. Accordingly, it appears as though the Examiner has picked and chosen among individual parts of assorted patent documents "as a mosaic to recreate a

facsimile of the claimed invention”. *Akzo N.V. v. U.S. Int’l Trade Comm’n*, 808 F.2d 1471, 1481 (Fed. Cir. 1986)(quoting *W.L. Gore & Assocs., Inc. v. Garlock*, 721 F.2d 1540, 1552 (Fed. Cir. 1983)). The Federal Circuit has noted, however, that “[v]irtually all inventions are necessarily combinations of old elements. The notion, therefore, that combination claims can be declared invalid merely upon finding similar elements in separate ... patents would necessarily destroy virtually all patents and cannot be the law under the statute, Section 103.” *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1575 (Fed. Cir. 1987). Applicant, therefore, respectfully requests reconsideration and withdrawal of the rejection of Claim 1 under 35 U.S.C. §103(a).

Applicant notes, too that Claims 2 through 15 depend from Claim 1 and as such, should be in condition for allowance for the reasons set forth for Claim 1, above.

Additional bases for the allowance of several claims that depend from Claim 1 are set forth, below:

Claim 3 - Applicant notes that as originally filed, Claim 3 included a typographical error (the letter “n” was omitted) and the deflectors include a “slanted portion”. Applicant notes that the wall (35) of the Baxter reference is not slanted.

Claim 8 - Applicant notes that the Ogi reference (USPN 6,540,436) discloses a deep root watering unit wherein individual units (10) include a sprinkler head (18 or 20) and that the sprinkler heads (18 or 20) may be connected to a pressurized supply line (36). Applicant notes that the pressurized water supply line (36) does not facilitate fluid communication between the units (10) but rather simply delivers pressurized water to each of the sprinkler heads (18 or 20) from a common water source. Accordingly, Applicant submits that there is no suggestion or motivation in the art for the combination



of references cited by the Examiner and moreover that the combination of references does not teach or suggest each and every claim limitation of Claim 8.

Claims 9 and 10 - Applicant notes that the Lynch reference (USPN 271,089) discloses a drain tile having an upper side (b) that is porous. The Examiner states in effect that the Lynch drain tile may be substituted for the piping that is used in the Ogi reference discussed in conjunction with Claim 8, above. Applicant notes, however, that as the water supply line (36) of the Ogi reference is pressurized, there can be no teaching or suggestion in the art for the modification, since the pressurized water would flow out of the pores of the drain tile, rather than collect in the conduit.

Claims 11 and 15 - Applicant notes that the Saggese reference (USPN 4,378,032) appears to disclose a method for forming a concrete pipe with a plurality of pre-formed slots. The method taught by Saggese employs inserts having holes formed therethrough which are cast into the walls of a concrete pipe; the holes in the inserts form the slots in the concrete pipe. Saggese does not teach or suggest the use of perforations to permit a portion of the wall member of a conduit to be knocked out to selectively form an aperture. While the word "perforation" is used in the Saggese reference at several points, it is only used to identify conduits having a plurality of holes formed therethrough (i.e., to drain the interior of the conduit) and not to pre-define an area that may be selectively punched out to receive another conduit. Moreover, there is not teaching or suggestion in the art for the combination of references cited by the Examiner.

#### Claims 16 through 20

Claims 16 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Thomas et al. (U.S. Pat. No. 5,975,797) in view of Chan (U.S. Pat. No. 3,900,962) and Baxter (U.S. Pat. No. 3,159,172). Claims 18-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Thomas et al. in view of Chan and Baxter as applied to Claim 16, in further view of Harrison. These rejections are respectfully traversed.

Applicant initially refers the Examiner to the discussion of Claim 1, above, for a discussion of the Thomas et al., Chan, Baxter and Harrison references and the propriety of the combination of the Chan, Baxter and Harrison references with the Thomas et al. reference.

In view of the above, Applicant respectfully submits that there is no motivation or suggestion in the art to combine the references in the manner suggested by the Examiner. Accordingly, it appears as though the Examiner has picked and chosen among individual parts of assorted patent documents "as a mosaic to recreate a facsimile of the claimed invention". *Akzo N.V. v. U.S. Int'l Trade Comm'n*, 808 F.2d 1471, 1481 (Fed. Cir. 1986)(quoting *W.L. Gore & Assocs., Inc. v. Garlock*, 721 F.2d 1540, 1552 (Fed. Cir. 1983)). The Federal Circuit has noted, however, that "[v]irtually all inventions are necessarily combinations of old elements. The notion, therefore, that combination claims can be declared invalid merely upon finding similar elements in separate ... patents would necessarily destroy virtually all patents and cannot be the law under the statute, Section 103." *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1575 (Fed. Cir. 1987).

Accordingly, Applicant respectfully requests reconsideration and withdrawal of

the rejection of Claim 16 under 35 U.S.C. §103(a).

Applicant notes that Claims 17 through 20 depend from Claim 16 and as such, should be in condition for allowance for the reasons set forth for Claim 16, above.

Additional bases for the allowance of several claims that depend from Claim 1 are set forth, below:

Claim 17 - Applicant notes that the combination of references cited by the Examiner does not teach or suggest each and every limitation of Claim 17. In this regard, none of the references cited includes a plurality of deflectors that are configured to capture water and which have an upwardly sloped portion.

Claim 18 - Applicant notes that the combination of references cited by the Examiner does not teach or suggest an upper flange.

Claims 19 & 20 - Applicant notes that the combination of references cited by the Examiner does not teach or suggest a lower flange that extends outwardly and upwardly from a housing. Moreover, Applicant notes that the Harrison reference does not have an open bottom.

#### Claim 21

Claim 21 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Thomas et al. (U.S. Pat. No. 5,975,797) in view of Harrison (U.S. Pat. No. 5,924,240). This rejection is respectfully traversed.

Applicant initially refers the Examiner to the discussion of Claim 1, above, for a discussion of the Thomas et al. and Harrison references and the propriety of the combination of the Harrison reference with the Thomas et al. reference.

In view of the above, Applicant respectfully submits that there is no motivation or suggestion in the art to combine the references in the manner suggested by the Examiner. Accordingly, it appears as though the Examiner has picked and chosen among individual parts of assorted patent documents “as a mosaic to recreate a facsimile of the claimed invention”. *Akzo N.V. v. U.S. Int’l Trade Comm’n*, 808 F.2d 1471, 1481 (Fed. Cir. 1986)(quoting *W.L. Gore & Assocs., Inc. v. Garlock*, 721 F.2d 1540, 1552 (Fed. Cir. 1983)). The Federal Circuit has noted, however, that “[v]irtually all inventions are necessarily combinations of old elements. The notion, therefore, that combination claims can be declared invalid merely upon finding similar elements in separate ... patents would necessarily destroy virtually all patents and cannot be the law under the statute, Section 103.” *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1575 (Fed. Cir. 1987).

Moreover, the combination of references does not teach or suggest each and every claim limitation. Specifically, the combination of references does not teach or suggest an upper flange, a lower flange that extends outwardly and upwardly from a housing. Moreover, Applicant notes that the Harrison reference does not have an open bottom.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of Claim 21 under 35 U.S.C. §103(a).


## **CONCLUSION**

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests

that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: November 11, 2004

By:   
\_\_\_\_\_  
Michael D. Zalobsky  
Reg. No. 45,512

HARNESS, DICKEY & PIERCE, P.L.C.  
P.O. Box 828  
Bloomfield Hills, Michigan 48303  
(248) 641-1600